AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS IN THE CASE

The following listing of claims replaces all previous listing of claims:

1-15. (Cancelled)

16. (Currently Amended) A method of processing an image for display on a display having sub-pixel display capability, said method comprising:

mapping a plurality of sub-pixels of said display to corresponding regions of said image, wherein each sub-pixel of said display ~~being~~ is mapped to a unique region of said image;

accessing said image, said image sampled at a higher spatial resolution than the spatial resolution of said display;

for each sub-pixel, calculating an intensity value for said sub-pixel using only intensity information for a first color from said corresponding region; and

rendering said image on said display, based on said calculated intensities.

17. (Previously Presented) A method as described in Claim 16 wherein the calculating comprises:

averaging the intensity value of said first color over a plurality of regions neighboring said region of said image, wherein each of said sub-pixels maps to its own plurality of regions.

18. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

based on the intensity of said first color in said region of said image, calculating an uncompensated intensity value for said first color;

calculating an error for each of the rest of said plurality of colors within said region,

storing said errors for said rest of said colors for processing further regions of said image; and

calculating a compensated intensity value for said area, based on said uncompensated intensity value and errors which were calculated for said first color when processing other image regions.

19. (Previously Presented) A method as described in Claim 18, wherein the compensated intensity value calculating comprises calculating said errors for said first region when processing a region for which uncompensated values are calculated for other colors of said plurality.

20. (Previously Presented) A method as described in Claim 16, further comprising:

filtering said image prior to calculating the intensity value for said sub-pixel, thereby producing a filtered image having a similar color scheme as said display.

21. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

for each sub-pixel of said display, mapping said sub-pixel to a region of said image, wherein each sub-pixel corresponds to a single color and said region of said image comprises intensity information for said plurality of colors.

22. (Previously Presented) A method as described in Claim 16, wherein the calculating comprises:

based on the intensity of said first color in said plurality of regions of said image, calculating an intensity value for said first color;

calculating an error for said first color; and

propagating said error for said first color for processing further regions of said image.

23. (Previously Presented) A method as described in Claim 22, wherein the calculating further comprises using in the intensity value calculating an error that was propagated when processing another area for said first color.

24. (New) A method of processing an image, said method comprising:

accessing an image comprising a plurality of sample points having intensity values for a plurality of colors, wherein said colors correspond to display capabilities of sub-pixels on a display; and

re-sampling said image in a pattern that matches a sub-pixel configuration of said display in physical location and color to determine intensity values for said sub-pixels.

25. (New) A method as recited in Claim 24, further comprising displaying said sampled image on said display.

26. (New) A method as recited in Claim 24, wherein said pattern is such that a sub-pixel of said display corresponds to more than one of said sample points.

27. (New) A method as recited in Claim 26, wherein said re-sampling comprises averaging an intensity value of a first color in said more than one of said sample points, said first color corresponding to a display capability of said sub-pixel.

28. (New) A method as recited in Claim 27, wherein said re-sampling further comprises discarding any intensity values for colors in said more than one of said sample points that do not correspond to said display capability of said sub-pixel.

29. (New) A method as recited in Claim 27, further comprising propagating an error value from said averaging when processing another sub-pixel of said first color.

30. (New) A method as recited in Claim 24, further comprising filtering said image prior to said re-sampling to produce a filtered image having a similar color scheme as said display.

31. (New) In a system having a processor coupled to a bus, a display coupled to said bus, and a computer readable medium coupled to said bus, said computer readable medium having stored therein a computer program that when executed by said processor causes said computer system to implement a method for processing an image, said method comprising

accessing an image that is sampled at a higher resolution than said display, said image comprising a plurality of sample points having intensity values for a plurality of colors, wherein said colors correspond to display capabilities of sub-pixels on a display; and

down-sampling said image in a pattern that matches a sub-pixel configuration of said display in physical location and color to determine intensity values for said sub-pixels, wherein said down-sampling comprises discarding color information in a sample point if the color information does not correspond to a display capability of a sub-pixel to which said sample point is mapped.

32. (New) A system as recited in Claim 31, wherein said pattern is such that a sub-pixel of said display corresponds to more than one of said sample points.

33. (New) A system as recited in Claim 32, wherein said down-sampling of said method comprises averaging an intensity value of a first color in said more than one of said sample points, said first color corresponding to a display capability of said sub-pixel.

34. (New) A system as recited in Claim 33, wherein said method further comprises propagating a error value from said averaging when processing another sub-pixel of said first color.

35. (New) A system as recited in Claim 31, wherein said method further comprises filtering said image prior to said re-sampling to produce a filtered image having a similar color scheme as said display.